

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently amended) ~~Genetically~~ A genetically modified plant cell, ~~characterised in that it which~~ has a reduced activity of at least one OK1 protein in comparison with corresponding wild type plant cells that have not been genetically modified.
2. (Currently amended) ~~Genetically~~ The genetically modified plant cell according to Claim 1, wherein the genetic modification ~~consists in the introduction of~~ comprises at least one foreign nucleic acid molecule introduced into the genome of the plant cell.
3. (Currently amended) ~~Genetically~~ The genetically modified plant cell according to Claim 2, wherein the foreign nucleic acid molecule ~~codes amino acid sequences, comprising amino acid sequences~~ comprises at least one sequence coding an OK1 protein.
4. (Currently amended) ~~Genetically~~ The genetically modified plant cell according to Claim 2 ~~one of Claims 2 or 3~~, wherein the ~~said~~ foreign nucleic acid molecule ~~is chosen from the group consisting of~~ comprises:
 - a. ~~DNA molecules, which code a~~ DNA molecule, which codes at least one antisense RNA, which ~~effects a reduction in the~~ reduces expression of at least one endogenous gene, which codes an OK1 protein;
 - b. ~~DNA molecules~~ a DNA molecule, which by ~~means of~~ a co-suppression effect ~~lead to the reduction in the~~ reduces expression of at least one endogenous gene, which codes an OK1 protein;
 - c. ~~DNA molecules, which code a~~ DNA molecule, which codes at least one ribozyme, which splits specific transcripts of at least one endogenous gene, which codes an OK1 protein;
 - d. ~~DNA molecules, which simultaneously code a~~ DNA molecule, which codes at least one antisense RNA and at least one sense RNA, wherein the said antisense RNA and the said sense RNA form a double-stranded RNA

- molecule, which ~~effects a reduction in the~~ reduces expression of at least one endogenous gene, which codes an OK1 protein (~~RNAi technology~~);
- e. ~~Nucleic acid molecules~~ a nucleic acid molecule introduced by ~~means of~~ *in vivo* mutagenesis, which ~~lead~~ leads to a mutation or an insertion of a heterologous sequence in at least one endogenous gene coding an OK1 protein, wherein the mutation or insertion ~~effects a reduction in the~~ reduces expression of a gene coding an OK1 protein or results in the synthesis of inactive OK1 proteins;
- f. ~~Nucleic acid molecules, which code~~ a nucleic acid molecule, which codes an antibody, wherein the antibody ~~results in a reduction in the~~ reduces activity of ~~an~~ at least one OK1 protein ~~due to the bonding to an~~ by binding at least one OK1 protein;
- g. ~~DNA molecules, which contain~~ a DNA molecule comprising one or more transposons, wherein the integration of these transposons leads to a mutation or an insertion in at least one endogenous gene coding an OK1 protein, which ~~effects a reduction in the~~ reduces expression of at least one gene coding an OK1 protein, or results in the synthesis of inactive OK1 proteins; or
- h. ~~T-DNA molecules~~ a T-DNA molecule, which, due to insertion in at least one endogenous gene coding an OK1 protein, ~~effect a reduction in the~~ reduces expression of at least one gene coding an OK1 protein, or ~~result~~ results in the synthesis of inactive OK1 protein.

5. (Currently amended) ~~Plant~~ The plant cell according to Claim 1 ~~one of Claims 1 to 4~~, which synthesises a modified starch in comparison with corresponding wild type plant cells that have not been genetically modified.

6. (Currently amended) ~~Plant containing~~ A plant comprising one or more plant cells according to Claim 1 ~~one of Claims 1 to 5~~.

7. (Currently amended) ~~Plant~~ A plant according to Claim 6, which is a starch-storing plant.

8. (Currently amended) ~~Plant~~ A plant according to Claim 7, which is a wheat or maize plant.

9. (Currently amended) ~~Plant~~ A plant according to Claim 6 ~~one of Claims 6, 7 or 8~~, which has a high starch (~~starch excess~~) phenotype.

10. (Currently amended) Propagation material of ~~plants~~ a plant according to Claim 6 ~~one of Claims 6, 7, 8 or 9~~, containing plant cells according to ~~one of Claims 1 to 5~~.

11. (Currently amended) ~~Harvestable plant parts of plants~~ A harvestable plant part of a plant according to Claim 6 ~~one of Claims 6, 7, 8 or 9~~, containing plant cells according to ~~one of Claims 1 to 5~~.

12. (Currently amended) ~~Method for the manufacture of~~ A method of manufacturing a genetically modified plant according to Claim 6 ~~one of Claims 6, 7, 8 or 9~~, wherein comprising:

- a. genetically modifying a plant cell is ~~genetically modified, whereby, wherein~~ the genetic modification ~~leads to the reduction of the~~ increases the activity of ~~an~~ at least one OK1 protein in comparison with corresponding wild type plant cells that have not been genetically modified;
- b. regenerating a plant is ~~regenerated from one or more plant cells from Step a);~~ and
- c. ~~if necessary, further optionally producing one or more additional plants are produced with the help of the plants~~ from a plant according to Step b).

13. (Currently amended) ~~Method~~ The method according to Claim 12, wherein the genetic modification in step a) ~~consists in the introduction of~~ comprises at least one foreign nucleic acid molecule introduced into the genome of the plant cell.

14. (Currently amended) ~~Method~~ The method according to Claim 13, wherein the ~~said~~ foreign nucleic acid molecule is ~~chosen from the group consisting of~~ comprises:

- a. ~~DNA molecules, which code a~~ DNA molecule, which codes at least one antisense RNA, which ~~effects a reduction in the~~ reduces expression of at least one endogenous gene, which codes an OK1 protein;

- b. ~~DNA molecules~~ a DNA molecule, which by ~~means of~~ a co-suppression effect ~~lead to the reduction in the~~ reduces expression of at least one endogenous gene, which codes an OK1 protein;
- c. ~~DNA molecules, which code a~~ DNA molecule, which codes at least one ribozyme, which ~~specifically splits~~ specific transcripts of at least one endogenous gene, which codes an OK1 protein;
- d. ~~DNA molecules, which simultaneously code a~~ DNA molecule, which codes at least one antisense RNA and at least one sense RNA, wherein the said antisense RNA and the said sense RNA form a double-stranded RNA molecule, which ~~effects a reduction in the~~ reduces expression of at least one endogenous gene, which codes an OK1 protein (~~RNAi technology~~);
- e. ~~Nucleic acid molecules a~~ nucleic acid molecule introduced by ~~means of~~ *in vivo* mutagenesis, which ~~lead~~ leads to a mutation or an insertion of a heterologous sequence in at least one endogenous gene coding an OK1 protein, wherein the mutation or insertion ~~effects a reduction in the~~ reduces expression of a gene coding an OK1 protein or results in the synthesis of inactive OK1 proteins;
- f. ~~Nucleic acid molecules, which code a~~ nucleic acid molecule, which codes an antibody, wherein the antibody ~~results in a reduction in the~~ reduces activity of ~~an at least one~~ OK1 protein ~~due to the bonding to an~~ by binding at least one OK1 protein;
- g. ~~DNA molecules, which contain a~~ DNA molecule comprising one or more transposons, wherein the integration of these transposons leads to a mutation or an insertion in at least one endogenous gene coding an OK1 protein, which ~~effects a reduction in the~~ reduces expression of at least one gene coding an OK1 protein, or results in the synthesis of inactive OK1 proteins; ~~and/or~~
- h. ~~T-DNA molecules a~~ T-DNA molecule, which, due to insertion in at least one endogenous gene coding an OK1 protein, ~~effect a reduction in the~~ reduces expression of at least one gene coding an OK1 protein, or ~~result~~ results in the synthesis of inactive OK1 protein.

15. (Currently amended) ~~Method~~ The method according to Claim 12 ~~one of Claims 12, 13 or 14,~~ wherein the genetically modified plant synthesises a modified starch in comparison with corresponding wild type plants that have not been genetically modified.

16. (Currently amended) ~~Recombinant~~ A recombinant nucleic acid molecule containing comprising a promoter, which initiates transcription in plant cells, and at least one nucleic acid sequence ~~chosen from the group consisting of~~ comprising:

- a. ~~Nucleic acid sequences, which code a nucleic acid sequence, which codes at~~ least one antisense RNA, which ~~effects a reduction in the~~ reduces expression of at least one endogenous gene, which codes an OK1 protein;
- b. ~~Nucleic acid sequences~~ a nucleic acid sequence, which by means of a co-suppression effect ~~lead to the reduction in the~~ reduces expression of at least one endogenous gene, which codes an OK1 protein;
- c. ~~Nucleic acid sequences, which code a nucleic acid sequence, which codes at~~ least one ribozyme, which splits specific transcripts of at least one endogenous gene, which codes an OK1 protein, ~~and ; or~~
- d. ~~Nucleic acid sequences, which simultaneously code a nucleic acid sequence,~~ which codes at least one antisense RNA and at least one sense RNA, wherein the said antisense RNA and the said sense RNA form a double-stranded RNA molecule, which ~~effects a reduction in the~~ reduces expression of at least one endogenous gene, which codes an OK1 protein (RNAi technology).

17. (Currently amended) ~~Vector containing~~ A vector comprising a recombinant nucleic acid molecule ~~as defined in Claim 16 under a) to d).~~ comprising at least one nucleic acid sequence comprising:

- a. a nucleic acid sequence, which codes at least one antisense RNA, which reduces expression of at least one endogenous gene, which codes an OK1 protein;
- b. a nucleic acid sequence, which by a co-suppression effect reduces expression of at least one endogenous gene, which codes an OK1 protein;

- c. a nucleic acid sequence, which codes at least one ribozyme, which splits specific transcripts of at least one endogenous gene, which codes an OK1 protein; or
- d. a nucleic acid sequence, which codes at least one antisense RNA and at least one sense RNA, wherein the said antisense RNA and the said sense RNA form a double-stranded RNA molecule, which reduces expression of at least one endogenous gene, which codes an OK1 protein.

18. (Currently amended) ~~Host~~ A host cell, which is genetically modified with a recombinant nucleic acid molecule according to Claim 16 ~~or with a vector according to Claim 17.~~

19. (Currently amended) ~~Composition containing~~ A composition comprising a recombinant nucleic acid molecule as defined in Claim 16 under a) to d) or a vector according to Claim 17, comprising at least one nucleic acid sequence comprising:

- a. a nucleic acid sequence, which codes at least one antisense RNA, which reduces expression of at least one endogenous gene, which codes an OK1 protein;
- b. a nucleic acid sequence, which by a co-suppression effect reduces expression of at least one endogenous gene, which codes an OK1 protein;
- c. a nucleic acid sequence, which codes at least one ribozyme, which splits specific transcripts of at least one endogenous gene, which codes an OK1 protein; or
- d. a nucleic acid sequence, which codes at least one antisense RNA and at least one sense RNA, wherein the said antisense RNA and the said sense RNA form a double-stranded RNA molecule, which reduces expression of at least one endogenous gene, which codes an OK1 protein.

20. (Currently amended) ~~Modified~~ A modified starch obtainable from a genetically modified plant according to Claim 6, or propagation material or a harvestable part therefrom ~~one of Claims 6, 7, 8 or 9, from propagation material according to Claim 10, or from harvestable plant parts according to Claim 11.~~

21. (Currently amended) ~~Method for the manufacture of~~ A method for manufacturing a modified starch ~~including the step of comprising~~ extracting the starch from a plant cell according to Claim 1 ~~one of Claims 1 to 5~~.
22. (Currently amended) ~~Method for the manufacture of~~ A method for manufacturing a modified starch ~~including the step of comprising~~ extracting the starch from a plant according to Claim 6 ~~one of Claims 6, 7, 8 or 9, and/or from a starch-storing part thereof~~ ~~parts of such a plant~~.
23. (Currently amended) ~~Method for the manufacture of~~ A method for manufacturing a modified starch ~~including the step of comprising~~ extracting the starch from a harvestable plant part ~~parts-part~~ according to Claim 11.
24. (Canceled)
25. (Currently amended) ~~Modified~~ A modified starch obtainable by ~~means of~~ a method according to Claim 21 ~~one of Claims 21, 22 or 23~~.
26. (Currently amended) ~~Method for the manufacture of~~ A method for manufacturing a derived starch, ~~wherein comprising deriving a~~ modified starch according to Claim 20 ~~or 25 or obtainable by means of a method according to one of Claims 21, 22 or 23 is~~ ~~derived~~.
27. (Currently amended) ~~Derived~~ A derived starch obtainable by ~~means of~~ a method according to Claim 26.
28. (Canceled)
29. (New) A host cell, which is genetically modified with a vector according to Claim 17.